

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: **Hisakazu TANAKA et al.**

Serial No.: **Not Yet Assigned**  
(§ 371 of international application No. PCT/JP/01/06428)

Filed: **March 22, 2002**

For: **WATER ABSORBENT MATERIAL AND ABSORBENT ARTICLE  
USING THE SAME**

PRELIMINARY AMENDMENT

Commissioner for Patents  
Washington, D.C. 20231

March 22, 2002

Sir:

Prior to the calculation of the filing fees of the above application, please amend the application as follows:

IN THE SPECIFICATION:

Please replace the paragraph beginning at page 2, line 13, with the following rewritten paragraph:

Furthermore, in order to solve the problems described above, water absorbent materials comprising a copolymer of either a sulfoalkyl (meth)acrylate or an acrylamide (Japanese Unexamined Patent Application, First Publication, No. Hei 10-81714) or a copolymer of a nonionic monomer and acrylic acid (Japanese Unexamined Patent Application, First Publication, No. Hei 9-143210) have also been proposed. However, although these water absorbent materials offer an improved water absorption of water which contains salts, the water absorption for pure water or water with only small amounts of ions actually decreases, and the initial water absorption speed is also slow.

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Please replace the paragraph beginning at page 14, line 25, with the following rewritten paragraph:

The method of adding the polymerizable anhydropolyamino acid (A) is not specifically limited, but includes, for example, (1) a method of previously mixing an aqueous solution of a previously hydrolyzed polymerizable anhydropolyamino acid (A) with an aqueous solution of a sulfonic acid group-containing polymerizable monomer, (2) a method of simultaneously pouring an aqueous solution of a sulfonic acid group-containing polymerizable monomer, (3) a method of pouring during temperature rise, or (4) a method of pouring after the polymerization was initiated by heat generation. Among these methods, the method (4) is preferred because it can maintain the stability of the system more satisfactorily.

Please replace Table 5 at page 37 with the following rewritten Table 5:

Table 5

Components to be charged (g)		Example 6	Example 7	Example 8	Comp. Example 3	Comp. Example 4
(3) First step	Polysuccinimide (2)	3	3	3	-	-
	GMA	0.3	0.3	0.3		-
	NaOH	1.2	1.2	1.2	-	-
	Ion exchange water	3.2	3.2	3.2	-	-
	Sucrose ester F-160 (HLB=16)	0.75	0.75	0.75	-	-
	Cyclohexane	20	20	20	-	20
	Sucrose ester F-90 (HLB=9)	0.75	0.75	0.75	-	-
(3) Second step	Cyclohexane	164	164	164	-	-
	Na sulfomethyl methacrylate	18.4	-	-	18.4	-
	AMPS	-	16.5	16.5	16.5	-
	Acrylamide	18.4	18.4	18.4	18.4	18.4
	NaOH	-	1.9	1.9	-	8.3
	Ion exchange water	80.9	76.5	76.5	80.9	76.5
	MBAA	0.0039	0.0039	0.0039	0.0039	0.0039
(3) Third step	APS	0.05	0.05	0.05	0.05	0.05
	GMA	-	-	0.09	-	-
	APS	-	-	0.09	-	-
	Ion exchange water	-	-	2.1	-	-



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VERSION WITH MARKINGS TO SHOW CHANGES MADEIN THE SPECIFICATION:

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	NaOH	1.2	1.2	1.2	-	-
	Ion exchange water	3.2	3.2	3.2	-	-
	Sucrose ester F-160 (HLB=16)	0.75	0.75	0.75	-	-
	Cyclohexane	20	20	20	-	20
(3) Second step	Sucrose ester F-90 (HLB=9)	0.75	0.75	0.75	-	-
	Cyclohexane	164	164	164	-	-
	Na sulfomethyl methacrylate	18.4	-	-	18.4	-
	AMPS	-	16.5	16.5	16.5	-
	Acrylamide	18.4	18.4	18.4	18.4	18.4
	NaOH	-	1.9	1.9	-	8.3
	Ion exchange water	80.9	76.5	76.5	80.9	76.5
	MBAA	<del>0.00039</del> 0.0039	<del>0.00039</del> 0.0039	<del>0.00039</del> 0.0039	<del>0.00039</del> 0.0039	<del>0.00039</del> 0.0039
(3) Third step	APS	0.05	0.05	0.05	0.05	0.05
	GMA	-	-	0.09	-	-
	APS	-	-	0.09	-	-
	Ion exchange water	-	-	2.1	-	-